

Appendix H

Summary of Direct Radiation Monitoring Data



An Environmental TLD Package

This page intentionally left blank

Table H-1
Summary of 2003 Quarterly Averages of Off-Site TLD Measurements
(mR±2 SD/quarter)

Location Number*	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Location Average
DFTLD01	15±4.3	24±4.9	20±4.4	15±3.4	18±4.3
DFTLD02	14±4.2	22±4.7	20±4.4	16±3.6	18±4.2
DFTLD03	13±4.1	20±4.2	16±3.8	13±3.1	16±3.8
DFTLD04	14±4.2	22±4.6	20±4.4	15±3.4	18±4.2
DFTLD05	15±4.3	23±4.7	19±4.3	15±3.5	18±4.2
DFTLD06	14±4.2	22±4.6	19±4.3	15±3.4	17±4.1
DFTLD07	13±4.1	18±4.0	16±3.7	12±2.9	15±3.7
DFTLD08	15±4.3	20±4.3	19±4.2	15±3.4	17±4.1
DFTLD09	15±4.3	22±4.7	18±4.1	14±3.3	17±4.1
DFTLD10	13±4.0	22±4.6	19±4.2	16±3.5	17±4.1
DFTLD11	13±4.1	20±4.2	17±3.8	13±3.1	15±3.8
DFTLD12	15±4.3	21±4.5	20±4.4	14±3.2	17±4.1
DFTLD13	14±4.2	25±5.1	22±4.7	17±3.7	19±4.5
DFTLD14	14±4.2	23±4.9	20±4.4	16±3.5	18±4.3
DFTLD15	14±4.1	22±4.7	19±4.2	16±3.7	18±4.2
DFTLD16	13±4.1	22±4.7	20±4.3	14±3.3	17±4.1
DFTLD17**	15±4.3	NA	NA	NA	15±4.3
DFTLD20	12±4.0	19±4.1	16±3.7	12±2.9	15±3.7
DFTLD21	15±4.3	23±4.8	20±4.4	15±3.4	18±4.3
DFTLD22	15±4.3	26±5.3	21±4.5	17±3.8	19±4.5
DFTLD23**	15±4.3	22±4.7	20±4.5	14±3.3	18±4.2
DFTLD37**	17±4.5	NA	NA	NA	17±4.5
DFTLD41**	13±4.1	NA	NA	NA	13±4.1

* Off-site locations are shown on Figures A-11 through A-13 (pp. A-11 through A-13).

** Background measurements are provided by off-site TLDs 17, 23, 37, and 41. Locations 17, 37, and 41 were removed from the program after the first quarter of CY 2003.

NA - Not available.

Conversion factor: Milliroentgen (mR) units are used to report exposure rates in air. To convert mR to mrem (dose to humans), a conversion factor of 1.03 must be applied. For example, a reported exposure rate of 18.1 mR/quarter would be equivalent to 18.6 mrem/quarter (based upon dose-equivalent phantom calibration using cesium-137).

Table H-2
Summary of 2003 Quarterly Averages of On-Site TLD Measurements
(mR±2SD/quarter)

Location Number*	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Location Average
DNTLD18	26±6.0	34±6.8	29±6.1	24±5.1	28±6.0
DNTLD19	16±4.5	26±5.4	23±5.0	18±3.9	21±4.7
DNTLD24	492±96.5	584±114.5	486±95.3	471±92.4	508±100.1
DNTLD25	24±5.6	28±5.8	24±5.1	19±4.1	24±5.2
DNTLD26	17±4.7	27±5.6	25±5.3	20±4.3	22±5.0
DNTLD27	15±4.3	25±5.2	20±4.4	18±3.9	20±4.5
DNTLD28	16±4.5	26±5.4	23±4.9	16±3.6	20±4.6
DNTLD29	16±4.5	28±5.8	23±4.9	17±3.8	21±4.8
DNTLD30	17±4.6	27±5.5	23±5.0	19±4.1	21±4.8
DNTLD31	16±4.4	23±4.8	21±4.6	15±3.5	19±4.4
DNTLD32	24±5.6	34±6.8	27±5.6	24±5.0	27±5.8
DNTLD33	25±5.9	37±7.4	32±6.7	29±5.9	31±6.5
DNTLD34	44±9.1	56±11.2	48±9.7	45±9.0	48±9.8
DNTLD35	70±14.0	80±15.7	65±13.0	60±11.9	69±13.7
DNTLD36	91±18.1	41±8.3	34±7.0	33±6.6	50±11.1
DNTLD38	27±6.2	38±7.6	34±7.0	23±4.8	30±6.5
DNTLD39	38±8.1	56±11.2	50±9.9	44±8.8	47±9.6
DNTLD40	99±19.7	132±26.0	113±22.2	103±20.2	112±22.2
DNTLD42	75±15.0	88±17.3	78±15.3	67±13.3	77±15.3
DNTLD43	26±6.0	33±6.6	28±5.9	23±4.9	28±5.9

* On-site locations are shown on Figure A-10 (p. A-10).

Conversion factor: Milliroentgen (mR) units are used to report exposure rates in air. To convert mR to mrem (dose to humans), a conversion factor of 1.03 must be applied. For example, a reported exposure rate of 18.1 mR/quarter would be equivalent to 18.6 mrem/quarter (based upon dose-equivalent phantom calibration using cesium-137).

Table H-3
Third-Quarter 2003 TLD Results and Instantaneous Exposure Rate Readings
($\mu\text{R/hr}$) With a High-Pressure Ion Chamber (HPIC) at Each Monitoring
Location

Off-Site Location Number	3rd-Quarter TLD Result	August 2003 HPIC Result	On-Site Location Number	3rd-Quarter TLD Result	August 2003 HPIC Result
DFTLD01	8.91	9.23	DNTLD18	13.03	15.07
DFTLD02	8.77	8.93	DNTLD19	10.24	10.27
DFTLD03	7.27	8.33	DNTLD24	215.48	255.50
DFTLD04	8.86	8.33	DNTLD25	10.46	11.47
DFTLD05	8.55	8.90	DNTLD26	10.95	10.63
DFTLD06	8.51	8.80	DNTLD27	8.90	8.73
DFTLD07	7.09	9.03	DNTLD28	10.10	9.30
DFTLD08	8.24	8.80	DNTLD29	9.98	9.90
DFTLD09	8.02	8.53	DNTLD30	10.28	11.23
DFTLD10	8.38	8.70	DNTLD31	9.40	9.90
DFTLD11	7.31	9.07	DNTLD32	11.88	12.13
DFTLD12	8.77	9.17	DNTLD33	14.36	14.57
DFTLD13	9.53	9.00	DNTLD34	21.45	20.67
DFTLD14	8.82	9.13	DNTLD35	28.98	35.60
DFTLD15	8.24	8.70	DNTLD36	15.11	18.10
DFTLD16	8.69	8.70	DNTLD38	15.21	16.17
DFTLD20	7.00	8.90	DNTLD39	21.95	22.80
DFTLD21	8.86	8.60	DNTLD40	49.88	51.20
DFTLD22	9.17	10.73	DNTLD42	34.36	23.13
DFTLD23	9.03	8.50	DNTLD43	12.50	13.87

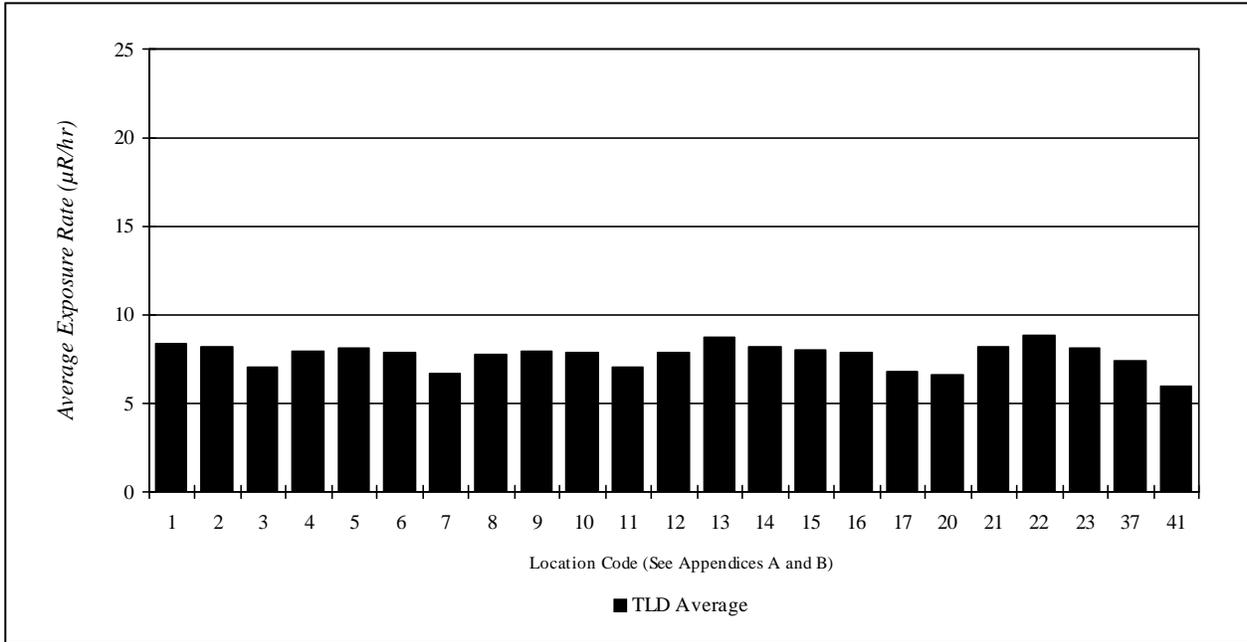


Figure H-1. 2003 Average Yearly Gamma Exposure Rates Around the WVDP

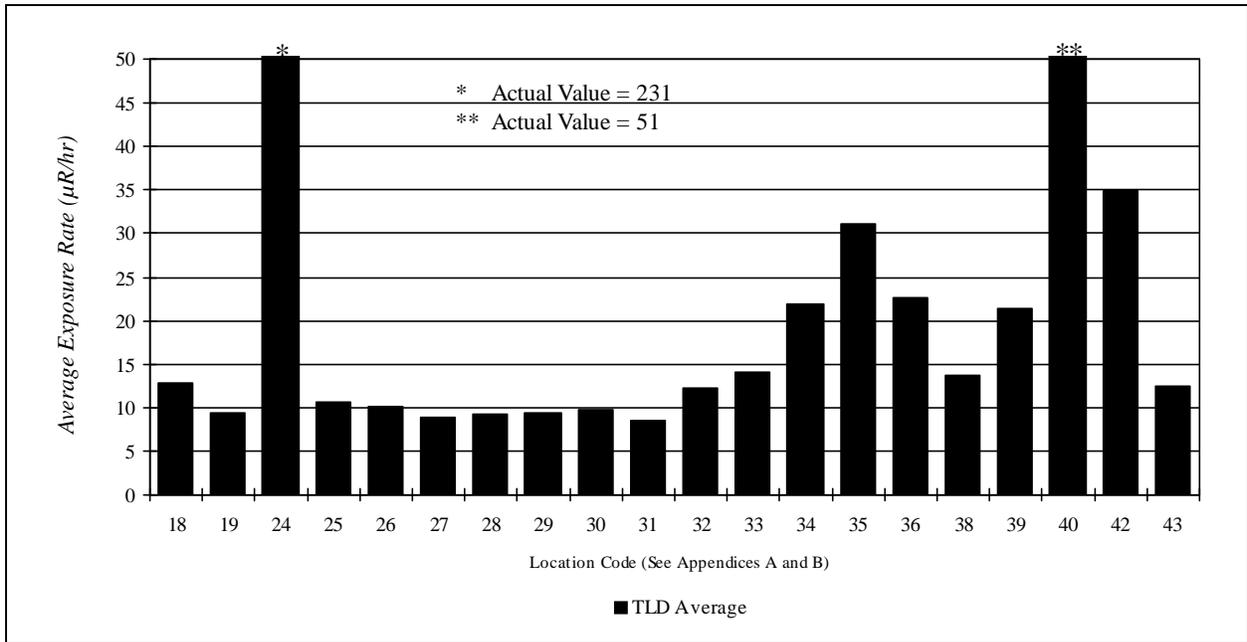


Figure H-2. 2003 Average Yearly Gamma Exposure Rates on the WVDP